

Atmos. Chem. Phys. Discuss., referee comment RC1  
<https://doi.org/10.5194/acp-2021-182-RC1>, 2021  
© Author(s) 2021. This work is distributed under  
the Creative Commons Attribution 4.0 License.

## **Comment on acp-2021-182**

Anonymous Referee #1

---

Referee comment on "Technical note: Sea salt interference with black carbon quantification in snow samples using the single particle soot photometer" by Marco Zanatta et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-182-RC1>, 2021

---

This paper is clearly written and presented. It presents important findings and useful information for anyone using an SP2 to measure rBC in snow or ice samples collected from environments where the samples could contain salt.

My only comment is to note a few places where I suggest edits or where corrections are needed:

Overall, the paper could use a very light edit for English, but this is very minor. Suggestion: In the title, capitalize Single Particle Soot Photometer, since it is a specific instrument.

Suggestion: Lines 90-92: "At the present time, the potential interference of sea salt during the analysis of rBC particles with the SP2 is not yet assessed." I would edit this to "Until now, the potential interference of sea salt during the analysis of rBC particles with the SP2 has not been assessed.", since with the publication of this paper it will have been.

Line 121 has an incomplete sentence.

Lines 148-149 there is an errant carriage return splitting the word "higher"

Line 157-158: another errant carriage return

Figure 2: It would be helpful (but not necessary) for clarity if the left y-axis legend was in bluetext and the right y-axis legend in red text

Figure 3: Consider changing the y-axis to log scale so that the variations in, e.g., EC, levoglucosan and organics can be seen better